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Tekelec's IP⁷ Products

Bringing Voice and Data Together

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Voice and data traveling across both the PSTN and IP network. It's called convergence, and it's the future of communications.

Creating a converged network—one that seamlessly integrates existing services with new technology—can be complex and challenging. While it's critical to implement new technologies, equally important to protect existing infrastructure investment and maintain today's high level of service. That's why providers are seeking ways to evolve their networks without sacrificing quality, reliability, and security.

SS7 is the technology solution that bridges the two networks, delivering the speed and economy of IP coupled with the security and intelligence of the PSTN.

Tekelec's IP⁷ product line delivers convergence solutions.

IP⁷ CONNECTS VOICE AND DATA

Tekelec's IP⁷ family of products links the PSTN and IP network using SS7. IP⁷ provides connectivity and control between voice and data networks, allowing the two to interoperate. As a result, traditional carriers and new Internet service providers alike can enjoy the tremendous cost advantages of packet-based networks while offering the advanced services, quality, reliability, and security of switched networks. With IP⁷ from Tekelec, the future of communications is here.

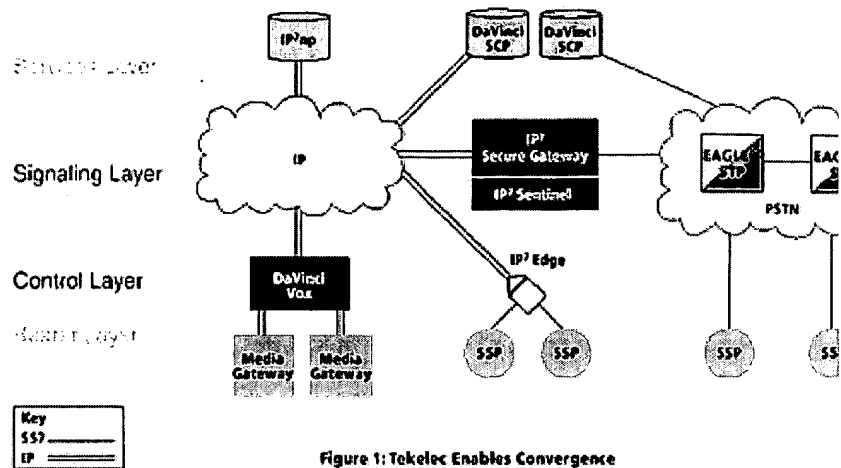


Figure 1: Tekelec Enables Convergence

IP⁷ SECURE GATEWAY™ PROVIDES COST-EFFECTIVE COMMAND AND CONTROL

The IP⁷ Secure Gateway, a multi-protocol node at the core of signaling network, delivers signaling and advanced services in multi-protocol, multi-vendor networks. It provides a full range applications, including signaling for voice over packet, Internet access, remote access, new service deployment, and Internet offload.

With a fully scalable architecture, the IP⁷ Secure Gateway can handle from 2 to 450 links, 1 to 10 million dial access ports, a to 20 million busy hour call attempts (BHCA's). For large-scale off load operations, the IP⁷ Secure Gateway routes call control signals to geographically diverse remote access servers (RASs) on an IP network—yet it appears as a single point code to the SS network. New IP network elements can be added to the network without adding new point codes.

Security is a major concern for service providers who rely on an existing SS7 network for critical services and interconnectivity with other providers' networks. Faulty messages transferred from the IP network to the SS7 network can drain resources, causing delays, congestion, and failure. The IP⁷ Secure Gateway ensures network reliability and security by clearly defining the boundary between the two networks and performing message screening on both.

Functional, scalable, and reliable, the IP⁷ Secure Gateway combines cost-effective IP transport

IP⁷ EDGE™ —TAKING SS7 TO THE LIMIT

Tekelec's IP⁷ Edge, a multi-protocol traffic concentrator, delivers long haul IP connectivity to the farthest reaches of the network. IP⁷ Edge enables up to 64 local network elements, such as local and tandem switches, mobile switching centers and home locations registers, to transmit SS7 signaling messages to remote

network elements over an IP network.

With IP⁷ Edge, carriers can leverage IP's dynamic bandwidth sharing to reduce overall transmission costs by as much as 50 percent. Existing SS7 nodes can be IP-enabled without expensive forklift replacements or costly software upgrades. IP⁷ Edge dramatically increases the network's flexibility and eases the task of network configuration and management. IP⁷ Edge brings the affordability of IP to the edge of the network.

IP⁷ np™ —SIMPLIFYING NUMBER PORTABILITY AND NUMBER POOLING

Tekelec's IP⁷ np is a number portability/number pooling solution for IP-based protocols. With its IP interface, the IP⁷ np database enables packet-based query/response messages across an IP network. One IP-enabled platform can perform more than 20 thousand queries per second for up to 12 million ported numbers—all while capitalizing on IP's bandwidth flexibility and cost-effective transport. And since each IP⁷ np node replaces multiple service control points (SCPs) in traditional networks, np also eases network management headaches. With IP⁷ np, the reality of local number portability finally lives up to the vision.

DAVINCI VOX™ —USING ONE GATEWAY CONTROLLER MANY MEDIA

A gateway-independent controller for multimedia services, the DaVinci VoX brings fully featured voice services to multi-vendor ATM and IP environments. DaVinci VoX's tandem switching capabilities enable carriers to use IP or ATM technologies for voice services such as flexible translations, screening, blocking, routing and generating call detail records.

The DaVinci VoX interfaces to ATM or IP networks via proprietary interfaces or standards-based interfaces such as Q.2931 or MGCP. It interfaces to the PSTN through SS7 or ISDN primary rate interface (PRI) signaling. DaVinci VoX supports up to 1 million BHCA and high capacity SS7 connectivity to the IP⁷ Secure Gateway. With DaVinci VoX, carriers can offer a full array of circuit-switched services at packet-switched prices.

DAVINCI SCP™ —USING ONE SERVICE CREATION ENVIRONMENT FOR MANY MEDIA

DaVinci SCP maintains the theme of vendor independence, bringing carriers the unique capability of interfacing to major switch vendors using industry-standards AIN 0.1. and AIN 0.2 as well as custom network interfaces. With DaVinci SCP, carriers start to unify the TDM environment at a service level. And with the introduction of DaVinci VoX, carriers can now take advantage of integration with the DaVinci SCP on day one, offering enhanced voice services such as travel card, prepaid calling or enhanced 800, 8XX, and NXX services.

IP⁷ SENTINEL™ —KEEPING WATCH OVER THE NETWORK

When it comes to SS7 and IP network surveillance, Tekelec's Sentinel is a tireless ally. The IP⁷ Sentinel continuously monitors services implemented across both SS7 and IP networks, from transport layer to the service layer. Service providers and carriers can supervise SS7 and IP networks with complete reliability and security.

IP⁷ Sentinel doesn't stop with passive monitoring. It enables carriers to actively prevent and correct network-wide problems, all from a central location. With IP⁷ Sentinel, carriers and service providers can maintain, monitor, and control their networks. It isolates, analyzes, and resolves network faults with one integrated platform—putting a welcome end to costly downtime. When IP⁷ Sentinel keeps watch over the network, problems are eliminated before they begin.

THE TEKELEC ADVANTAGE

The keys to success for any network—whether voice-centric, data-centric, or hybrid—are connectivity, control, and flexibility. Together, these qualities form the foundation upon which all of Tekelec's products and services are built.

For more than 20 years, Tekelec has set the standard in developing innovative communications solutions. From its high speed switching platforms to its suite of intelligent network services, Tekelec helps providers leverage the newest Internet-based technologies while maintaining their existing networks. What's more, all of Tekelec's offerings are built with the same legendary reliability that has made Tekelec the preferred choice of telecommunications companies around the globe.

Tekelec. Turning next-generation technologies into now-generation solutions. The Tekelec logo and EAGLE are registered trademarks. IP⁷, IP⁷ Secure Gateway, IP⁷ Edge, IP⁷ np, IP⁷ Sentinel, DaVinci, VoX, DaVinci VoX, and DaVinci SCP are trademarks of Tekelec. All other trademarks are the property of their respective owners.

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1-800-TEKELEC
webmaster@tekelec.com

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